

LONG ISLAND BOTANICAL SOCIETY NEWSLETTER

September - October 1993 Vol. 3, No. 5

In This Issue

Bob Laskowski has written an article about the Sayville Grasslands. He has been studying these grasslands for almost 20 years and has a wealth of information on this rare community. Page 32.

Steve Jay Sanford of the New York State Department of Environmental Conservation has submitted a Conservation Column on New York's Freshwater Wetlands and the No Net Loss Concept. Steve manages the Freshwater Wetlands and Protection of Waters program here on Long Island. Trained as a wildlife biologist, he has worked for DEC's Division of Fish and Wildlife since 1978. Page 34.

Please note that the election of officers will take place at the November Meeting.

PROGRAM NOTE: The programs for September and October are special. Both programs are workshops and have field trips at later dates associated with the talk. For instance you can attend Eric Lamont's talk on Sept. 14 and then go on the joint LIBS/Torrey Botanical Club Field Trip on Sept. 25.

PROGRAMS

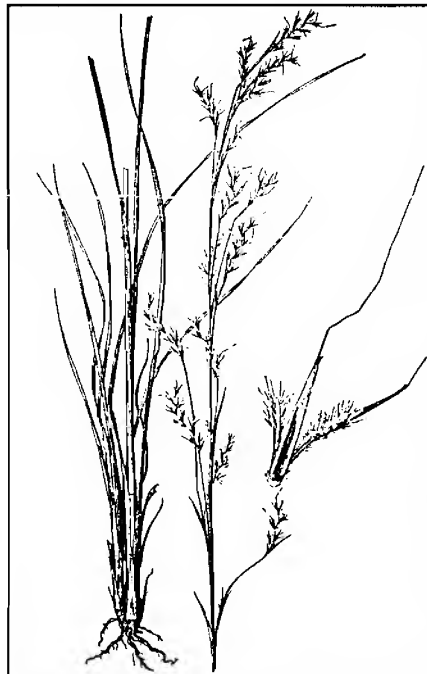
14 Sep. 1993 - 7:30 pm*, Eric Lamont, "Goldenrods of Long Island;" Uplands Farm Nature Center, Cold Spring Harbor.

12 Oct. 1993 - 7:30 pm*, Horst Welzel, "Mushrooms of Long Island;" Uplands Farm Nature Center, Cold Spring Harbor.

* Refreshments are available starting at 7:30 pm, the meeting begins at 8 pm.

The Sayville Grasslands of Long Island

My first observation of the Sayville Grasslands occurred in the 1970's while I was working on the Breeding Bird Atlas for the N.Y.S. Federation of Bird Clubs and the Department of Environmental Conservation. I was able to confirm over 30 species of birds that used the 100+ acres of grassland for nesting and foraging -- high diversity for an area that contains no wetlands.



Little Bluestem, *Schizachyrium scoparium*

My botanical inclinations were stimulated while looking at the birds. The landscape, dominated by little bluestem and Indian grass, reminded me of the Hempstead Plains. Not only were many of the plant species between the two grassland sites similar, but the overall structure of the two communities

also resembled each other. At the Sayville Grasslands I noticed open gaps of sparse vegetation between the sea of tall grasses. The open gaps were heavy with lichen growth and plants typical of dry, xeric, prairie conditions. My thoughts immediately drifted back to the late 1930's when I attended a Torrey Botanical Club field trip to the Hempstead Plains. Stanley Cain, botanist at the Cold Spring Harbor Laboratory, was the field trip leader. Well do I remember the feel of the

Sayville Grassland Cont'd

ground beneath my feet; on the right kind of day (not moist, but dry) the ground feels different under your feet. I know it sounds funny talking about the "feel of the ground," but it's true. That was virgin soil under foot at the Hempstead Plains, it had never been touched by a plow. Dr. Cain had pointed out steel rimmed wagon wheels that had cut through the prairie, and a whole different array of plants were growing in the disturbed tracks of soil. Once you break up the virgin soil of a prairie the path is open for the invasion of non-prairie plants. Back in the 1970's, when I first walked the grasslands at Sayville, the ground had that same feel underfoot as at the Hempstead Plains. I firmly believe that portions of the Sayville Grasslands have never been touched by a plow, it is virgin soil.

Let me cite Stanley Cain's own words, describing the vegetation of the Hempstead Plains: "However, the unbroken sod is easily recognizable. In places where the sod has been broken and the land allowed to lie fallow for several years there is a slow reversion to grassland. Such communities are marked by the addition of certain weed species and other changes in structure which distinguish them as secondary. Otherwise open ground in the virgin grassland is covered with rootstocks of *Andropogon scoparius* (now called *Schizachyrium scoparius*), the dominant, or with crustose and fruticose lichens, and mosses. This crust, together with the strong root-competition, make it practically impossible for plants not native to the association to establish propagules. The two factors just named may also help account for the almost complete absence of trees." (Cain, 1937)

The vegetation of the Sayville Grasslands is dominated by grasses and herbs, with widely scattered shrubs and dwarf trees. Growing with the little bluestem and Indian grass is switch grass, poverty grass, big bluestem, and broomsedge (not a real sedge, but a true grass). Fire sedge (*Carex pensylvanica*) occurs in small areas throughout the grassland. Characteristic herbs include wild indigo, butterfly weed, showy aster, slender fragrant goldenrod, blue-eyed grass, and old field toadflax. Two species of dwarf willow (*Salix tristis* and *Salix humilis*) and a dwarf shadbush (*Amelanchier stolonifera*) occur at the grassland. The grassland is slowly reverting back to a Pitch Pine/Oak forest. Pines and Oaks are especially reclaiming the perimeter of the grassland.

The list of rare plants at the Sayville Grasslands is impressive. Ten species of rare plants can be found at the grassland, and in 1989 The New York Times newspaper did an article on the rarest of these rare plants -- sandplain gerardia (*Agalinis acuta*). Sandplain gerardia is listed as a Federally Endangered plant

species and is, globally, a rare species. Only about 10 populations of this rare plant occur on earth; one population occurs at the Sayville Grasslands. In 1986, the *Agalinis* population at the Sayville Grasslands was the largest known population on earth!

New England blazing star (*Liatris scariosa* var. *novae-angliae*) is another rare plant that can be found in abundance at the Sayville Grasslands. During autumn, the brilliant rose-purple flowers offer a striking contrast with the straw colored stems of grasses. A careful search of some of the openings between grasses will reveal a rare lady's-tress orchid (*Spiranthes vernalis*). Other rarities include southern yellow flax (*Linum medium* var. *texanum*), sandplain wild flax (*Linum intercursum*), Stueve's bush clover (*Lespedeza stuevei*), fewflower nutrush (*Scleria pauciflora* var. *caroliniana*), slender pinweed (*Lechea tenuifolia*), flax-leaf aster (*Aster solidagineus*), and colic root (*Aletris farinosa*).

The relationship between plants and insects is well known and it should not be surprising to learn that several rare butterflies and moths also occur at Sayville Grasslands, including: buckmoth (*Hemileuca maia*), Edward's hairstreak butterfly (*Satyrrium edwardsii*), and herodias underwing moth (*Catocala herodias gerhardi*). An active Butterfly Club from New York City regularly visits the Sayville Grasslands.

The future of the Sayville Grasslands appears to be in good hands. Originally, portions of the site were developed by Kaiser Wilhelm in 1911 for cross Atlantic radio transmissions. President Wilson had the United States marines seize the station in World War I after the *Lusitania* was sunk. The land has been in Federal hands since. In 1953 the Federal Government erected a FAA Central Air Control Center on the site, but after the Center was relocated to New Jersey the government considered selling the site as surplus land in 1990. After many negotiations, an Act of Congress approved the preservation of the Sayville Grasslands.

Note: Sayville Grasslands is not open to the public.--Robert Laskowski

Cain, S. A., M. Nelson & W. McLean. 1937. *Andropogonietum* Hempsteadii: a Long Island grassland vegetation type. *American Midland Naturalist* 18: 334-350.

Outdoor Education Conference

The New York State Outdoor Education Association is holding its annual fall Conference Oct. 21-24 at the Roaring Brook Resort, Lake George. For a conference catalog, write to Al Mapes, 5 Rivers Environmental Education Center, Game Farm Road, Delmar, NY 12054; or call 518-475-0291. Its a super event!

New York's Freshwater Wetlands & No Net Loss

"No net loss of wetlands". It sounds quite clear, doesn't it? A lucid statement of policy to be implemented by government and applauded by both the environmental and land-owning publics? In the mid-1980's wetlands conservationists first uttered this cry. George Bush used it to rally the masses during his 1988 Presidential campaign. Governor Cuomo adopted it as policy in his 1990 State Address. Is it happening? Do we now enjoy no net loss of wetlands in New York? The answers are not simple.

First, what do the words mean? "No" and "loss" are clear enough; there is little room for argument or misinterpretation. "Net" is a key ingredient in this phrase, however. The difference between "no loss of wetlands" and "no *net* loss of wetlands" carries the unequivocal implication that at least some losses can be expected. As with a balanced bank account, though, the "net" means that any losses must be offset by gains. This is the world of mitigation and compensation. It is an issue large, complex and controversial enough to warrant treatment in a separate essay.

Presently, the obvious question is: "No net loss of *what*?" "No net loss of wetlands" does not specify *which* wetland resource we are to protect. It does not tell us *whether* we can accept losses of the upland "adjacent areas" around wetlands. It does not tell us *how* losses or gains should be measured. I do not intend herein to answer all of these questions. Instead, I hope I will show you that the questions are not simple. I am confident you will find that the regulatory world can be accurately described not as a perfect creation of modern civilization but as a collision between the natural world and the needs of the human species.

Earlier this year, the Department of Environmental Conservation convened several "no net loss" meetings around the state. Environmentalists, landowners, developers, local government officials and others talked about "no net loss". These "roundtable" discussions were intended to give us some information as to what New York's interested populace was expecting from both the "no net loss" policy and the wetlands programs in general. At the session here on Long Island, one of the first topics was the wetland resource itself. In essence, the group gave their thoughts on which resource should be established as a base against which we should measure the losses. Some felt that we should use the wetlands which exist today as the zero point.

Others would prefer to hark back to pre-Columbian levels. Another voice suggested the early 1970's.

It is believed that New York State once had over 4 million acres of wetlands. We now have about 2.2 million acres of freshwater wetlands and over 25 thousand acres of tidal wetlands. The New York State Freshwater Wetlands Act protects over two-thirds of our freshwater wetlands; the Tidal Wetlands Act protects all of the saltwater wetlands. Both do so by regulating development activities not only in the wetlands themselves but also in nearby uplands. The freshwater law exempts most wetlands smaller than 12.4 acres in size. This is not the case here on Long Island, however. Here we have asserted jurisdiction over hundreds of smaller wetlands. Nevertheless, many unregulated wetlands do exist, especially on a statewide basis. Does "no net loss" really mean "no net loss of currently regulated wetlands?"

Should we try to get back the wetlands we have lost? Should we try to expand the wetland resource over and above existing levels? At first glance, this proposal possesses an undeniable charm. Wetlands are good. The more wetlands the better. Let's make more! But, as Will Rogers once observed, no one's making any more real estate. Notwithstanding Mr. Rogers' apparent ignorance of the Netherlands, it remains that you cannot make wetlands without converting some uplands. Should we be converting uplands to wetlands? Restoring filled marshes or reflooding drained farm fields is probably a safe bet. But, should we destroy a fully functioning oak-pine woods for the sake of more red maple-tupelo swamp? Does not society have the stewardship responsibility for *all* of our landscape? What ecosystems are we willing to sacrifice in order to reclaim the wetland abundance of four centuries ago?

Should we regulate *all* freshwater wetlands? A basic premise of the Freshwater Wetlands Act is that, while all wetlands provide benefits to one degree or another, we do not need to save every last one. The people's interests can be adequately served by preserving the benefits associated with the lion's share of the resource. Given society's other needs for "the general welfare and beneficial economic, social and agricultural development of the state", the legislature and the Act recognized that *all* of the wetlands which existed in 1975 (when the Act became effective) could not be preserved.

The current regulatory program protects those *regulated* freshwater wetlands, and their so-called "adjacent areas", which have existed since about 1975. How well does it work? With respect to the permitting side of regulation, it does quite well. Here in DEC's

Region 1, which comprises Nassau and Suffolk Counties, we have about 21,000 acres of regulated freshwater wetlands. In any given year we review between 300 and 400 permit applications. A very few of these projects have a compelling need to fill some portion of a wetland. In such instances, over the past four years, we have permitted a total of between zero and one acre of wetland loss per year. If at all practicable, we have tried to compensate for these losses by mandating the restoration or creation of at least an equal amount of wetland. Our enforcement program is not yet as successful but we do know that even unpermitted losses are a very small fraction of the total resource. Our very largest cases involve half-acre fills. Wholesale destruction of wetlands is a thing of the past.

If only the whole matter were so simply gauged! In fact, acreage alone cannot produce an accurate picture of the state of the wetland resource. What about the quality of the wetlands? Are we losing the benefits for which we protect wetlands? How do we measure the status of wetland benefits? The evaluation or quantification of wetland benefits is a semantic morass. The Act recognizes nine distinct benefits of freshwater wetlands. A wetland's ability to provide wildlife habitat or treat polluted surface waters can be measured on the basis of recognized scientific procedures. The same wetland's ability to accommodate scientific research or serve as an aesthetic amenity are not so easily quantified. How do we know when we have suffered a net loss of benefits?

The answers to these questions have not yet been resolved. They will need to be answered before we can complete our State Wetlands Plan. We are trying hard to involve and listen to New Yorkers. By raising these issues, I hope I have stimulated some consideration on your part. Please send me your thoughts.--**Steven Jay Sanford**, Bureau of Environmental Protection, NYSDEC Stony Brook.

New Orchid Book

Paul Martin Brown has written a new book on orchids "A Field and Study Guide to Orchids of New England and New York." The book discusses 64 species, 5 varieties and 16 hybrids; also included is information on habit and habitat, with seven chapters on orchid hot spots. Special features include an index to recent literature references on all newer species, varieties and nomenclatural changes, detailed checklists, and more than 120 illustrations by Stan Folsom. To order send \$10 to Paul Martin Brown, 15 Dresden Street, Jamaica Plain, MA 02130-4407.

SOCIETY NEWS

June Meeting--June 8

Steve Clemants reported the Opium Poppy growing near the gates of the Brooklyn Botanic Garden.

Tom Delendick has been appointed by the Brooklyn Botanic Garden to work on the taxonomy of Horticultural Plants.

Bob Laskowski asked whether the red flowering variety of the Horse Chestnut set seed. **Tom Delendick** reports that this is *Aesculus x carnea* and that he has collected seed from the specimen at Brooklyn Botanic Garden.

Skip Blanchard gave a talk on "Instant Speciation in the Marvelous Malvaceae," a fascinating outline on his work investigating the generic variations of the world's population of the genus *Kosteletzkya* in the Malvaceae. All the members of the genus have $n=19$ chromosomes (except a few in Africa which are tetraploid ($n=38$) and hexaploid ($n=57$)). Since this may represent recent speciation, Skip is working in the greenhouse to hybridize some members of the genus and will show the synopsis or lack of it in the resulting chromosomes.

Proposed slate of officers for 1994-1995

The nominating Committee, chaired by **Betty Lotowycz**, proposes the following slate of officers for 1994-1995 (voting will occur at the November 1993 monthly meeting):

President	Eric Lamont
Vice President	Steven Clemants
Treasurer	Carol Johnston
Recording Secretary	Barbara Conolly
Corresponding Secretary	Jane Blanchard

As stated in the by-laws, chairpersons of each committee are not voted into office, but appointments are confirmed by the Executive Board.

Update: Roadside Mowing

The mowing of roadside habitats in the Township of East Hampton is continuing at a rapid pace during 1993. So far, all efforts to work out a management agreement with the Town's Highway Department have resulted in failure. Roadside habitats in East Hampton support the host plants of rare butterflies, and also support several populations of native orchids.

Long Island Plant Records

Two plant species from Long Island have recently been added to the flora of New York. In 1992, **Richard Stalter** (Professor of Botany, St. John's University) was botanizing at Gateway National Recreation Area and collected a sedge in the genus *Cyperus* that he had never seen before. He sent the specimen to **Gordon Tucker** at the State Museum in Albany for identification. The determination was *Cyperus brevifolioides* Thieret & Delahoussaye, a southern species that occurs from Alabama to the Delaware embayment; a disjunct historical population was once known from Greenwich, Connecticut. Also in 1992, **Robert Zaremba** from the Nature Conservancy collected an unknown grass from the South Fork. He gave the specimen to **David Hunt** who determined it to be peanutgrass, *Amphicarpium purshii* Kunth. Peanutgrass occurs in damp, sandy pinelands from Georgia to New Jersey, with a disjunct population on eastern Long Island.

Report from the field

In early July, 1993, **Lucy Miller** and **Peter Whan** of The Nature Conservancy joined me on a hike through the Walking Dunes of Napeague. The view of the Atlantic Ocean and of Napeague Bay is spectacular from the crest of these wind-blown sand dunes. The wet swales and depressions between the dunes support an interesting array of plant life. In past years, I have seen these swales aflame with literally 1000's of Rose Pogonia orchids. This year, much to the dismay of these three hikers, not one flowering Rose Pogonia could be found in my favorite swale; instead suspicious holes, like craters on a battle field, dotted the area where the orchids once grew.--**Ted Griffin**, Sagaponack

Long Island Orchid Atlas

The finishing touches are being made on an atlas of Long Island orchids, by **Eric Lamont**. It has become the only comprehensive collection that exists for the only non-native orchid of our flora, the helleborine orchid (*Epipactis helleborine* (L.) Crantz), also known as the weed-orchid. The first L.I. collection was in 1962 by **Roy Latham**. If you know of a location for this species and would like to contribute to the atlas, please contact Eric at 516-722-5542; your assistance will be acknowledged in the final publication. To date, collections are known from: East Hampton, Greenport, Jamaica Estates, Lloyd's Neck, Oyster Bay, Prospect Park, Queens Village, Sag Harbor, and Smithtown.

Programs

- 14 September 1993 - 7:30 pm, Eric Lamont** will present a workshop on "Goldenrods of Long Island." The Program will be at Uplands Farm Nature Center. There will be a slide presentation as well as live and pressed plant material for you to work with. The field trip on Sept. 25 is a continuation of this workshop.
- 12 October 1993 - 7:30 pm, Horst Welzel** will present a workshop on "Mushrooms of Long Island." The program will be at Uplands Farm Nature Center. There will be a slide presentation on common mushrooms of Long Island and how to recognize them. The field trip on Oct. 17 is a continuation of this workshop.

Field Trips

- 11 September 1993, Sat, 9:30 am.- "Long Island's White Cedar Communities. John Turner** will lead this trip to Cranberry Bog County Park, Sear's Bellows County Park and other localities in eastern Long Island. Additional western Suffolk and Nassau sites are optional. Meet at the County Center in Riverhead. Wear old sneakers. If you plan to come please call John by Sept. 8 at 516-797-9786.
- 25 September 1993, Sat.-"Goldenrods, Asters and general fall botany." Eric Lamont** will lead this joint LIBS/Torrey Botanical Club field trip to Caumsett State Park. Meet either at 10 am at the Cold Spring Harbor LIRR Station (the train from NYC arrives at 9:45) or meet at Caumsett at 10:15. Bring lunch and a beverage. If you plan to come please call Eric by Sep. 20 at 516-722-5542.
- 17 October 1993, Sun., 2 pm-"Mushroom Day." Horst Welzel** will lead this joint LIBS/New York Mycological Club trip to Planting Fields Arboretum. Meet inside the gate at 2 pm. We will collect specimens and bring these back to the lab for identification. We plan to end about at 4:30.

Volunteers Needed

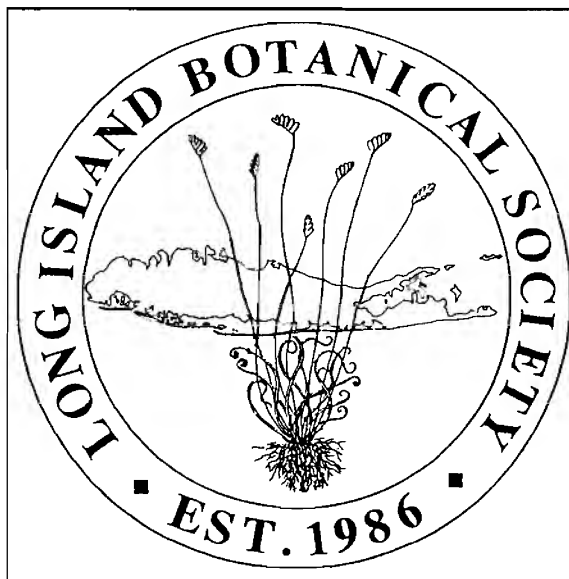
The Education Committee will be exhibiting the LIBS display at the 89th Fall Flower and Landscape Show, October 1-11, at Planting Fields Arboretum. Volunteers are certainly needed. If you can spare a few hours to help man the booth please contact Mary Laura Lamont at 516-722-5542.

LONG ISLAND BOTANICAL SOCIETY

Founded: 1986; Incorporated: 1989.

The Long Island Botanical Society is dedicated to the promotion of field botany and a greater understanding of the plants that grow wild on Long Island, New York.

President	Eric Lamont
Vice President	Chris Mangels
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Education	Margaret Conover
	Mary Laura Lamont
Hospitality	Nancy Smith
	Joanne Tow
Program	Eric Lamont
Editor	Steven Clemants



Membership

Membership is open to all, and we welcome new members. Annual dues are \$10. For membership, make your check payable to LONG ISLAND BOTANICAL SOCIETY and mail to: Lois Lindberg, Membership Chairperson, 45 Sandy Hill Rd., Oyster Bay, NY 11771-3111

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